

| Notice of Allowability | Application No. | Applicant(s) | |
|-------------------------------|------------------------|---------------------|--|
| | 09/965,393 | MCCANN ET AL. | |
| | Examiner | Art Unit | |
| | Kuen S. Lu | 2167 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. This communication is responsive to June 14, 2005.
2. The allowed claim(s) is/are 1-42.
3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some* c) None of the:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date _____.
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. Notice of References Cited (PTO-892)
2. Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. Notice of Informal Patent Application (PTO-152)
6. Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. Examiner's Amendment/Comment
8. Examiner's Statement of Reasons for Allowance
9. Other _____.

DETAILED ACTION

1. After a thorough search and examination of the present application, and in light of the prior art made of record and Applicant's response of June 14, 2005, Claims 1-42 are allowed.

Reason for Allowable

2. In the Examiner's Office Action for non-Final Rejection of January 4, 2005, 35 U.S.C. 35 U.S.C. § 102, rejections was based on the primary reference, U.S. Patent 6,823,336 B1, Srinivasan et al., "DATA STORAGE SYSTEM AND METHOD FOR UNINTERRUPTED READ-ONLY ACCESS TO A CONSISTENT DATASET BY ONE HOST PROCESSOR CONCURRENT WITH READ-WRITE ACCESS BY ANOTHER HOST PROCESSOR", issued on November 23, 2004 (hereafter "Srinivasan").

In the Remarks filed on June 14, 2005, concerning the subject matter of recovering of mirroring operation involving the clustered system configuring re-direct filter driver and method steps of writing first temporary storage, mirroring write operation to the second temporary storage and deleting the second temporary data upon receiving signal indicating the successful writing operation from the first temporary storage to the storage medium, the Examiner agreed the cited references does not fairly or specifically teach.

A further reviewing the results of searches conducted over the last one and half years on the domain of EAST, STIC, www.google.com, IEEE and ACM, the Examiner recognizes the prior art searched does not fairly teach this specific implementation of recovering a mirroring operation by the method steps of utilizing three data stores and

deleting the second temporary upon learning that writing from the first temporary to the storage medium and the clustered system configuring re-direct filter driver for recovering mirrored data operation. The closest mirroring methods, investigated in the prior art searches, such as disk caching, split mirroring and multiple mirroring, distinct from the method steps and system claimed as the subject matter by the Applicant.

A most recent update search conducted as described below further revealed that the prior art does not fairly teach the subject matter as claimed and the claims 1, 11, 16, 21, 34 and 38 is hereby considered and accepted.

A search for the prior arts on EAST database has been recently conducted to further extend and update the scope the searches conducted during the past one and half years on domains (EAST, NPL-ACM, Google, NPL-IEEE, Oracle, Sun Micro, etc.). The prior art searched and investigated in domains (EAST, NPL-ACM, Google, NPL-IEEE, Oracle, Sun Micro, etc) does not fairly teach or suggest the teaching of the combined elements as claimed in the independent claims 1, 11, 16, 21, 34 and 38.

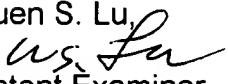
The dependent Claims (2-10), (12-15), (17-20), (22-33), (35-37) and (39-42) depending claims 1, 11, 16, 21, 34 and 38, respectively, also distinct from the prior art for the same reason.

3. Any comments considered necessary by Applicants must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

Contact Information

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuen S. Lu whose telephone number is (571) 272-4114. The examiner can normally be reached on Monday-Friday (8:30 am-5:30 pm). If attempts to reach the examiner by telephone pre unsuccessful, the examiner's supervisor, Jean R. Homere, Esq. can be reached on (571) 272-3780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for Page 13 published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact he Electronic Business Center (EBC) at 886-217-9197 (toll-free).

Kuen S. Lu,

Patent Examiner,
November 23, 2005

